BIOLOGY (Science 112.43)
Correlation To Texas Essential Knowledge and Skills

CHAPTER 1- INTRODUCTION TO WATER

ACTIVITY	KNOWLEDGE AND SKILLS
The Hydrologic Cycle, 1-1	112.43.1 (A)(B) Scientific processes (..conducts field and laboratory investigations..) 112.43.2 (A)(B)(C)(D) Scientific processes (...uses scientific methods...) 112.43.3 (A)(C)(E) Scientific processes (uses critical thinking and scientific problem solving...) 112.43.12(A) Science concepts (analyze the flow of energy through various cycles...)
Water Careers, 1-85	112.43.3 (D) Scientific processes (describe the connection between biology and future careers
Environmental Controversy-Class Project, 1-105	112.43.2 (A)(B)(C)(D) Scientific processes (...uses scientific methods...) 112.43.3 (A)(B)(C)(D) Scientific processes (uses critical thinking and scientific problem solving...) 112.43.11 (C) Science concepts (analyze the importance of ...environmental conditions...) 112.43.12 (D) Science concepts (identify and illustrate that long-term survival of species is dependent on a resource base that may be limited...)

CHAPTER 2- DRINKING WATER AND WASTEWATER TREATMENT

ACTIVITY	KNOWLEDGE AND SKILL
Chlorination for Disinfection, 2-15	112.43.1 (A)(B) Scientific processes (..conducts field and laboratory investigations..) 112.43.2 (A)(B)(C)(D) Scientific processes (...uses scientific methods...) 112.43.2 (A)(B)(C) Scientific processes (..uses critical thinking and scientific problem solving...) 112.43.11 (C) Science concepts (analyze the importance of...environmental conditions...) (D) Science concepts (summarize the role of microorganisms...)
Drinking Water Jeopardy, 2-21	112.43.2 (A)(C) Scientific processes (..uses critical thinking and scientific problem solving...) 112.43.11 (C) Science concepts (analyze the importance of...environmental conditions...)

ACTIVITY	KNOWLEDGE AND SKILL
What is in Sourcewater?, 2-65	112.43.1 (A)(B) Scientific processes (..conducts field and laboratory investigations..) 112.43.2 (A)(B)(C)(D) Scientific processes (...uses scientific methods...) 112.43.3 (A)(E) Scientific processes (...uses critical thinking and scientific problem solving...) 112.43.12 (C) Science concepts (compare variations, tolerances...in different biomes) (E) (investigate and explain the interactions in an ecosystem...)
The World of Biological Wastewater Treatment, 2-83	112.43.1 (A)(B) Scientific processes (..conducts field and laboratory investigations..) 112.43.2 (A)(B)(C)(D) Scientific processes (...uses scientific methods...) 112.43.3 (A)(C)(E) Scientific processes (...uses critical thinking and scientific problem solving...) 112.43.11 (C) Science concepts (analyze the importance of ...environmental conditions...) (D) (summarize the role of microorganisms in maintaining....equilibrium)
Do Septic Tanks Do the Job?, 2-107	112.43.1 (A)(B) Scientific processes (..conducts field and laboratory investigations..) 112.43.2 (A)(B)(C)(D) Scientific processes (...uses scientific methods...) 112.43.3 (A)(C)(E) Scientific processes (...uses critical thinking and scientific problem solving...) 112.43.11 (C) Science concepts (analyze the importance of ...environmental conditions...) (D) (summarize the role of microorganisms in maintaining..equilibrium)

CHAPTER 3 - SURFACE WATER RESOURCES

ACTIVITY	KNOWLEDGE AND SKILLS
Biodiversity = Water Quality, 3-29	112.43.1 (A)(B) Scientific processes (..conducts field and laboratory investigations..) 112.43.2 (A)(B)(C)(D) Scientific processes (...uses scientific methods...) 112.43.3 (A)(C) Scientific processes (...uses critical thinking and scientific problem solving...) 112.43.12 (C) Science concepts (compare variations, tolerances, and adaptations...) (E) (investigate and explain the interactions in an ecosystem...)
Simple Test for Microbial Contamination, 3-49	112.43.1 (A)(B) Scientific processes (..conducts field and laboratory investigations..) 112.43.2 (A)(B)(C)(D) Scientific processes (...uses scientific methods...) 112.43.3 (A)(C) Scientific processes (...uses critical thinking and scientific problem solving...) 112.43.11 (C) Science concepts (analyze the importance of ...environmental conditions,...) (D) (summarize the role of microorganisms in maintaining...)
What Are Fecal Coliforms and How Are They Related to Water Quality?, 3-63	112.43.1 (A)(B) Scientific processes (..conducts field and laboratory investigations..) 112.43.2 (A)(B)(C)(D) Scientific processes (...uses scientific methods...) 112.43.3 (A)(C) Scientific processes (...uses critical thinking and scientific problem solving...) 112.43.11 (C) Science concepts (analyze the importance of ...environmental conditions,...) (D) (summarize the role of microorganisms in maintaining...)

CHAPTER 5 - WETLANDS AND COASTAL WATERS

ACTIVITY	KNOWLEDGE AND SKILL
Wetlands, USA- More Than Swamps, 5-25	112.43.1 (A)(B) Scientific processes (..conducts field and laboratory investigations..) 112.43.2 (A)(B)(C)(D) Scientific processes (...uses scientific methods...) 112.43.3 (A)(C)(E) Scientific processes (...uses critical thinking and scientific problem solving...) 112.43.12 (C) Science concepts (...compare variations, tolerances, and adaptations of plants and animals...) (D) (...identify and illustrate that long term survival of species...) (E) (investigate and explain the interactions in an ecosystem...)
Estuaries: Interface Between Sea and Land, 5-53	112.43.1 (A)(B) Scientific processes (..conducts field and laboratory investigations..) 112.43.2 (A)(B)(C)(D) Scientific processes (...uses scientific methods...) 112.43.3 (A)(C)(E) Scientific processes (...uses critical thinking and scientific problem solving...) 112.43.12 (C) (compare variations, tolerances, and adaptations of plants and animals...) (D) (...identify and illustrate that long term survival of species...) (E) (investigate and explain the interactions in an ecosystem...)